

I CLAIM:

1. A security revolving door assembly comprising:

5 a revolving door having a rotary vertical shaft, a vertical lateral wall with an arc-shaped cross-section and extending circumferentially relative to said vertical shaft, and a plurality of door wings mounted on and extending radially from said shaft toward said lateral wall, said door wings having distal ends disposed away from said shaft and including a first door wing
10 and a second door wing following said first door wing, said door wings being rotatable along with said shaft and defining with said lateral wall a trap space when said first and second door wings reach respectively first and second positions which are spaced apart angularly,
15 said second position lagging said first position, said distal ends of said first and second door wings confronting said lateral wall when said first and second door wings reach respectively said first and second positions; and

20 a controlling unit coupled to said revolving door and operable so as to stop rotation of said door wings as soon as said door wings define said trap space.

2. The security revolving door assembly as claimed in Claim 1, wherein said controlling unit includes a sensor
25 for detecting when one of said first and second door wings reaches one of said first and second positions.

3. The security revolving door assembly as claimed in

Claim 1, further comprising a stationary seat adjacent to said revolving door, said controlling unit including a position detecting unit detecting whether or not said first door wing passes through said second position, and a lock mechanism which includes a first engaging portion mounted on said stationary seat, and a plurality of second engaging portions connected to said door wings and arranged respectively at locations corresponding to the positions of said door wings, said first engaging portion being interlockable with one of said second engaging portions.

4. The security revolving door assembly as claimed in Claim 3, wherein said stationary seat is disposed above said door wings.

5. The security revolving door assembly as claimed in Claim 3, wherein said controlling unit further includes a drive unit coupled to said revolving door and operable so as to rotate said door wings to a standby position, said drive unit being coupled to and controlled by said position detecting unit.

6. The security revolving door assembly as claimed in Claim 4, further including a top plate disposed on top of said door wings and connected to said door wings for simultaneous rotation with said door wings, each of said second engaging portions having a hole formed in said top plate and aligned with a corresponding one of said door wings.

7. The security revolving door assembly as claimed in Claim 6, wherein said first engaging portion includes a first electromagnetic device with a magnetically-operated first plunger, which is movable downwardly to engage said hole in the corresponding one of said door wings.

8. The security revolving door assembly as claimed in Claim 7, wherein said first engaging portion further includes a first spring member sleeved on said first plunger to urge said first plunger to move downwardly.

9. The security revolving door assembly as claimed in Claim 7, wherein said controlling unit further includes a second electromagnetic device with a magnetically-operated second plunger which is movable toward said first plunger to prevent said first plunger from moving downwardly.

10. The security revolving door assembly as claimed in Claim 9, wherein said first engaging portion further includes a second spring member sleeved on said second plunger to urge said second plunger toward said first plunger.

11. The security revolving door assembly as claimed in Claim 5, wherein said drive unit includes a motor, and a transmission mechanism interconnecting said shaft and said motor.

12. The security revolving door assembly as claimed in Claim 3, wherein said position detecting unit includes

a light sensor.

13. The security revolving door assembly as claimed in Claim 12, wherein said light sensor is mounted on said stationary seat at a location corresponding to said
5 second position, said position detecting unit further including a plurality of reflector plates respectively associated with said door wings and associated operably with said light sensor.